REMARKS

I. INTRODUCTION

Claims 1, 3-6, 10 and 11 are pending in the present application. Claim 1 has been amended. In view of the following, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

II. REJECTION OF CLAIMS 1 to 3, 5 to 8, 10 and 11 UNDER 35 U.S.C. § 102(b)

Claims 1 to 3, 5 to 8, 10 and 11 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,782,403 ("Wang") and U.S. Patent No. 5,662,766 ("Ishikawa"). It is respectfully submitted that Wang and Ishikawa do not anticipate the present claims for at least the following reasons.

In the Advisory Action mailed on March 17, 2008, the Examiner contended that the claimed recitation of "the converter is a component dynamically balanced with respect to **a center axis**" contained in claim 1 does not specify the location of the "center axis," and therefore the Examiner may interpret the "center axis" as being "central to the conductor and the converter, i.e., the axis through the lateral contacting surface between the conductor and the converter." Although Applicants believe the Examiner's asserted interpretation is not supported by the established rules of claim interpretation (the claims should be given "the broadest reasonable interpretation" that is consistent with the specification and the interpretation that those skilled in the art would reach -- see M.P.E.P. 2111), in order to expedite prosecution of the present application, Applicants have explicitly amended claim 1 to recite that "the converter is a component dynamically balanced with respect to **a center axis of the converter**, the vibration conductor being laterally secured on **a side of** the converter **so that a center axis of the vibration conductor is oriented** perpendicularly to the **center axis of the converter**."

In contrast to the above-recited features of claim 1, Wang and Ishikawa clearly fail to suggest that a vibration conductor is laterally secured on a side of the converter so that a center axis of the vibration conductor is oriented perpendicularly to a center axis of the converter. As clearly shown and described in Wang, the ultrasonic transducer (30) is not connected to the lateral-to-torsional converter (34) laterally and perpendicularly to a center axis of the lateral-to-torsional converter (34); instead, transducer (30) and converter (34) are coaxially connected end-to-end. In addition, the longitudinal vibration horn (VH) of Ishikawa is not connected to the torsional vibration horn (TH) laterally and perpendicularly to a center axis of the torsional vibration horn (TH); instead, horns (VH) and (TH) are coaxially connected end-to-end.

With respect to the claimed features that "a converter situated between the vibration conductor and the bonding tool to convert the linear vibrations into radial vibrations such that the bonding tool is able to be incited to one of radial vibrations and rotary vibrations about a tool axis of rotation, wherein . . . the vibration exciter generates linear ultrasonic vibrations in a direction approximately parallel to the contact surface of the substrate," the Examiner contends in the Advisory Action that since Wang and Ishikawa disclose the same bonding tool with the same structural features as that of the Applicants, the bonding tools of Wang and Ishikawa are "capable of performing the same function" as Applicants' claimed feature. However, as noted above, **the vibration exciters for generating the linear ultrasonic vibration** as disclosed in Wang and Ishikawa are oriented coaxially with the converter and **perpendicular to the processing surface**, which means it is **physically impossible** for the structural arrangements taught by Wang and Ishikawa to satisfy both claimed limitations of a) the vibration exciter which generates linear ultrasonic vibrations in a direction approximately parallel to the contact surface of the substrate, **and** b) converter . . . to convert the linear vibrations into radial vibrations such that the bonding tool is able to be incited to one of radial vibrations and rotary vibrations about a tool axis of rotation, "the conductor being adapted to be welded onto the contact surface with the aid of ultrasonic vibrations transmitted to at least one of the contact surface and the conductor."

For at least the foregoing reasons, claim 1 and its dependent claims 3 and 5 are allowable over Wang and Ishikawa.

As regards claim 6, Wang and Ishikawa clearly fail to suggest that an "electrical conductor is fed to a bonding tool through a converter, through a feed channel." Therefore, claim 6 is allowable over Wang and Ishikawa.

Claim 10 recites, in relevant parts, "generating linear ultrasonic vibrations in a direction approximately parallel to the contact surface of the substrate; and converting the linear ultrasonic vibrations into rotary vibrations, and introducing the rotary vibrations into at least one of the contact surface and the conductor." As noted above in connection with claim 1, the structural arrangement disclosed Wang and Ishikawa cannot perform the claimed steps: in both Wang and Ishikawa, **the vibration exciter for generating the linear ultrasonic vibration** is oriented coaxially with the converter and **perpendicular to the processing surface**, which means it is **physically impossible** for the structural arrangements taught by Wang and Ishikawa to satisfy both claimed limitations of a) generating linear ultrasonic vibrations in a direction approximately parallel to the contact surface of the substrate, **and** b) converting the linear ultrasonic vibrations into rotary vibrations and introducing the rotary vibrations into at least one of the contact surface and the conductor.

For at least the foregoing reasons, claim 10 and its dependent claim 11 are allowable over Wang and Ishikawa.

III. REJECTION OF CLAIM 4 UNDER 35 U.S.C. § 103(a)

Claim 4 was rejected under 35 U.S.C. § 103(a) as unpatentable over Wang in view of U.S. Patent No. 5,733,074 ("Stöck"), and also unpatentable over Ishikawa in view of Stöck. It is respectfully submitted that the asserted combinations do not render unpatentable claim 4 for at least the following reasons.

Claim 4 ultimately depends from claim 1 and therefore includes all of the features of claim 1. As set forth above, Wang and Ishikawa fail to anticipate claim 1. In addition, Stöck does not remedy the deficiencies of Wang and Ishikawa as applied against parent claim 1. Accordingly, it is respectfully submitted that the asserted combinations do not render unpatentable dependent claim 4.

IV. CONCLUSION

In view of the foregoing, it is respectfully submitted that all of the presently pending claims are allowable. It is therefore respectfully requested that the rejections be withdrawn, since they have been obviated. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is respectfully requested.

Respectfully submitted,

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